

THE MOTHS OF INDIA.
SUPPLEMENTARY PAPER TO THE VOLUMES IN
"THE FAUNA OF BRITISH INDIA."

SERIES III, PART III.

By

SIR GEORGE HAMPSON, BART., F.Z.S., F.E.S.

(Continued from page 719 of Vol. XVI.)

Sub-family HADENINÆ.

Key to the GENERA.

- A, Fore tibia with terminal claw.
- a. Abdomen with dorsal series of crests..... *Barathra*.
- b. Abdomen with dorsal crest on 1st segment only ... *Hypobarathra*.
- B. Fore tibia without terminal claw.
- a. Fore tarsus with long curved claw-like spines on
outer side of 1st joint *Trichoclea*.
- b. Fore tarsus without claw-like spines on outer side
of 1st joint.
- a¹. Eyes overhung by long cilia.
- a². Thorax clothed chiefly with scales *Thyrestra*.
- b². Thorax clothed with hair only *Lasiestra*.
- b¹. Eyes not overhung by long cilia.
- a². Proboscis aborted, minute.
- a³. Abdomen with dorsal crest on 1st segment,
- a⁴. Frons with disk-shaped prominence
with central truncate process *Aspidifrontia*.
- b⁴. Frons without prominence *Brithys*.
- b³. Abdomen without dorsal crest *Polytela*.
- b². Proboscis fully developed.
- a³. Frons with truncate conical prominence.
- a⁴. Abdomen with dorsal series of crests.
- a⁵. Frons with semilunar corneous pro-
minence *Discestra*.
- b⁵. Frons with circular prominence *Craterestra*.
- b⁴. Abdomen with dorsal crest on 1st seg-
ment only *Palponima*.
- b³. Frons with slight rounded prominence
with corneous plate below it.
- a⁴. Abdomen with dorsal series of crests.
- a⁵. Head and thorax clothed chiefly with
scales *Scotogramma*.
- b⁵. Head and thorax clothed with hair-
like scales *Dasygaster*.

- b*⁴. Abdomen with dorsal crest on 1st segment only..... *Odontestra*.
- c*⁴. Abdomen without dorsal crest *Meliana*.
- c*³. Frons without prominence.
 - a*⁴. Tegulæ dorsally produced into a ridge.
 - a*⁵. Abdomen with dorsal crest on 1st segment *Xylomania*.
 - b*⁵. Abdomen without dorsal crest *Mouima*.
 - b*⁴. Tegulæ not produced into a ridge.
 - a*⁵. Thorax clothed chiefly with scales.
 - a*⁶. Abdomen with dorsal series of crests *Miselia*.
 - b*⁶. Abdomen with dorsal crest on 1st segment only *Hadena*
 - b*⁵. Thorax clothed with hair and hair-like scales, sometimes with a few scales on upper edge of patagia.
 - a*⁶. Abdomen with dorsal series of crests..... *Tiracola*
 - b*⁶. Abdomen with dorsal crest on 1st segment only.
 - a*⁷. Prothorax with dorsal ridge-like crest *Chabuata*.
 - b*⁷. Prothorax with spreading crest ... *Cirphis*.
 - c*⁶. Abdomen without dorsal crest ... *Borolia*.
 - c*⁵. Thorax clothed with hair only.
 - a*⁶. Prothorax with spreading crest..... *Sideridis*.
 - b*⁶. Thorax without distinct crests *Ceraphryx*.

Genus THYRESTRA.

Type.

Thyrestra, Hmps. Cat. Lep. Phal. B.M. V., p. 6 (1905) ... *hyalophora*.

Proboscis fully developed; palpi upturned, fringed with hair in front, the



Thyrestra hyalophora. ♂ 1.

3rd joint porrect; frons smooth; eyes large, rounded, overhung by long cilia; antennæ of male almost simple, head and thorax clothed with rough scales, the prothorax with ridge-like dorsal crest, the metathorax with crest; abdomen with dorsal series of crests, paired lateral tufts of very long white hair protrusible from the lateral stigmata of male. Forewing rather long and narrow, the apex produced and the termen oblique; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10

anastomosing with 8 to form the areole; 11 from cell. Hindwing with veins 3·4 from angle of cell; 5 obsolescent from middle of discocellulars; 6·7 stalked; 8 anastomosing with the cell near base only; male with a patch of hyaline membrane in, below, and beyond cell.

1756 a. THYRESTRA HYALOPHORA.

Genus BARATHRA.

Barathra Hübn. Verz., p. 218 (1827)

Copimamestra, Grote, A. M. N. H. (5) XI., p. 54 (1883).

Type.

brassicæ.

brassicæ.

Proboscis fully developed; palpi obliquely upturned, the 2nd joint fringed with



hair, the 3rd short; frons smooth; eyes large, rounded, not ciliated; antennæ of male minutely ciliated; tibiæ fringed with hair, the fore tibia with long

Barathra brassicæ. ♂

curved claw on outer side; head and thorax clothed with hair and scales, the pro- and metathorax with spreading crests, abdomen with dorsal series of crests, the one on basal segment large. Forewing with the termen crenulate; veins 3 and 5 from close to angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hindwing with veins 3·4 from angle of cell; 5 obsolescent from just below middle of discocellulars; 6·7 from upper angle; 8 anastomosing with the cell near base.

1691. BARATHEA BRASSICÆ insert (syns.).

Mamestra andalusica, Staud. Cat., p. 90 (1871).

„ *scotochroma*, Rüber. Iris. 1, p. 340, pl. xii., f. 13 (1884).

„ *decolorata*, Staud. Stett Ent. Zeit 1889, p. 34.

„ *straminea*, Failla. Nat. Sic. X., p. 30, pl. 1, f. 5 (1890).

Genus DISCESTRA.

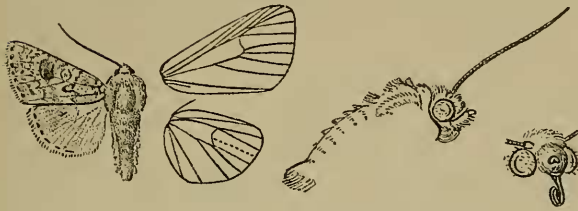
Type.

Discestra, Hmps. Cat. Lep. Phal B. M. V. p. 14 (1905) *chartaria*.

Proboscis fully developed; palpi upturned, the 2nd joint fringed with hair in front; frons with semilunar corneous prominence with raised edges, a corneous plate below frons; eyes large, rounded; antennæ of male ciliated; head and thorax clothed chiefly with scales, the pro- and metathorax with divided crests; abdomen with dorsal series of crests. Forewing with veins 3·5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hindwing with veins 3·4 from angle of cell; 5 obsolescent from middle of discocellulars; 6·7 from upper angle; 8 anastomosing with the cell near base only.

1679c. DISCESTRA ARENARIA, Hmps. Cat. Lep. B. M. V., p. 16, pl. 78, f. 25 (1905).

Head whitish; thorax and abdomen whitish tinged with pale ochreous brown; tarsi tinged with fuscous. Forewing whitish, tinged with pale ochreous brown and irrorated with fuscous: sub-basal line double waved, from costa



Discestra arenaria. ♂ $\frac{1}{2}$.

to vein 1; antemedial line indistinct, double, waved; claviform moderate, defined by black; orbicular and reniform moderate, with fuscous centres defined by black, the former round; traces of a medial line; postmedial line dentate, bent outwards below costa, excurved to vein 4, then incurved, some pale points beyond it on costa; subterminal line pale, slightly defined by fuscous, minutely waved, angled outwards at vein 7, slightly dentate at veins 4-3 and bent outwards to tornus; a terminal series of small black lunules. Hindwing white, the veins and termen tinged with brown; some dark terminal points; the under side with the costa slightly irrorated with brown, a small black discoidal point

Habitat—SIND, Karachi. *Exp.* 30-32, mill.

GENUS CRATERESTRA.

Type.

Craterestra. Hmps. Cat. Lep. Phal., B.M., V., p. 17 (1905) ... *lucina*.

Proboscis fully developed; palpi upturned, the 2nd joint fringed with hair in front, the 3rd moderate, oblique; frons with truncate conical corneous prominence with corneous plate below it; eyes large, rounded; antennæ ciliated; head and thorax clothed with scales and hair, the pro- and meta-thorax with spreading crests; tibiæ fringed with rather long hair; abdomen with dorsal series of crests and lateral fringes of hair. Forewing with veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hindwing with veins 3-4 from angle of cell; 5 obsolescent from middle of discocellulars; 6-7 from upper angle; 8 anastomosing with the cell near base only.

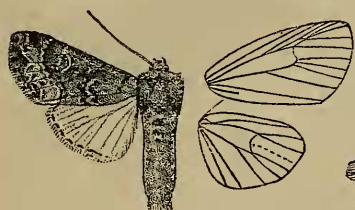
- A. Forewing with the medial area darker than ground colour *media*.
- B. Forewing with the medial area not darker than ground colour.
 - a. Forewing with the costal area whitish.
 - a¹. Forewing with the inner area whitish *bifascia*.
 - b¹. Forewing with the inner area not whitish *albicosta*.
 - b. Forewing with the costal area not whitish..... *subterminata*.

1679d. CRATERESTRA MEDIA. Wlk., XI. 756 (1857); Hmps. Cat. Lep. Phal., B. M., V., p. 19, pl. 78, f. 28.

Apamea latifasciata, Moore, P. Z. S. 1881, p. 345.

Apamea viriata, Swinh., P. Z. S. 1885, p. 450.

Head and thorax red-brown mixed with black or fuscous brown; tegulae



with medial black line; tarsi with ochreous rings; abdomen ochreous brown. Forewing fuscous brown, the area below the cell.

Craterestra media. ♂ $\frac{1}{2}$.

before the antemedial line and the postmedial area except towards costa ochreous more or less tinged with brown; a waved subbasal line from costa to submedian fold; antemedial line defined by ochreous on inner side, waved, strongly angled outwards above inner margin; claviform moderate, defined by black and with some blackish between it and postmedial line; orbicular and reniform defined by black, the former round; an indistinct waved medial line; postmedial line dentate, indistinctly double, bent outwards below costa, excurved to vein 4, then oblique; subterminal line pale, defined on inner side by a series of slight dentate rufous marks, angled outwards at vein 7 and dentate at veins 4-3, the area beyond it dark except at apex; a terminal series of black points; cilia intersected with rufous. Hindwing white or ochreous white, the veins and terminal area more or less tinged with fuscous; the under side with the costal and terminal areas irrorated with fuscous, a postmedial series of slight dark streaks on the veins.

Habitat.—MASHONALAND, Salisbury; PUNJAB, Kulu, Sultanpore, Dharmasála, Jubbulpore, Manpuri; BOMBAY, Poona; CANARA; NILGIRIS; BURMA, Mandalay, Thayetmyo. *Esp.* 34-36, mill.

1935. CRATERESTRA BIFASCIA.

1936. CRATERESTRA ALBICOSTA.

1679. CRATERESTRA SUBTERMINATA. Hmps. Cat. Lep. Phal., B. M., V., p. 22, pl. 78, f. 31 (1905).

♀. Head and thorax bronwish grey; tegulae with black medial line; tarsi fuscous with pale rings; abdomen grey-brown. Forewing grey tinged with reddish-brown; the postmedial area except towards costa, the area below the cell from before middle, and the inner margin from base suffused with fuscous; an ill-defined black streak below base of cell; subbasal line represented by a blackish mark below costa; antemedial line indistinct, dentate, oblique; claviform absent; orbicular very indistinct, rather elongate; reniform with brown and fuscous centre and greyish annulus, somewhat angled inwards on median nervure; postmedial line indistinct, double, filled in with greyish, bent outwards below costa excurved to vein 4, then incurved, some pale points on costa beyond it; subterminal line pale, diffused, angled outwards at vein 7 and excurved at middle; a terminal series of points; cilia whitish intersected with brown. Hindwing whitish tinged with brown; the veins and

termen brown; the underside white irrorated with brown, a discoidal spot, indistinct sinuous postmedial line with dark streaks on the veins, and some terminal lunules.

Habitat.—SIKHEM. *Exp.* 34, mill.

Genus SCOTOGRAMMA

Type.

Scotogramma, Smith, Pr. U. S. Nat. Mus. X., p. 469 (1887)... *submarina*.

Proboscis fully developed; palpi oblique, the 2nd joint fringed with hair in front, the 3rd moderate, porrect; frons with rounded prominence with slight vertical edge and corneous plate below it; eyes large, rounded; antennæ of male ciliated; head and thorax clothed with hair and scales, the pro- and meta thorax with spreading crests; tibiæ fringed with hair; abdomen with dorsal series of crests and lateral fringes of hair. Forewing with veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hindwing with veins 3·4 from angle of cell; 5 obsolescent from middle of discocellulars; 6·7 from upper angle; 8 anastomosing with the cell near base only.

- A. Forewing with the subterminal line angled outwards at veins 4·3 and forming a distinct W-mark *trifolii*.
 B. Forewing with the subterminal line not forming a W-mark at veins 4·3 *agrotiformis*.



Scotogramma trifolii, ♂.

1677. SCOTOGRAMMA TRIFOLII, insert (syns.).

Noctua verna, Fsp. Schmett., IV., pl. 117, A ff. 5·6 (1786).

„ *saucia*, Esp. Schmett., IV., pl. 152, f. 5. (1786).

„ *treitschkei*, Hübn., Eur. Schmett. Noct., f. 850 (1827); Boisd. Mem. Soc. Linn., Paris 1827, p. iii., pl. 6, f. 2; Dup. Lep. Fr. VIII. p. 40, pl. 103, f. 1; Herr-Schaff. Schmett., Eur. Noct. ff. 68-69; Stand. Cat. Lep. Pal, p. 159.

„ *pugnax*, Hübn. Eur. Schmett. Noct. ff. 726-7 (1827).

„ *farkusii*, Treit. Schmett., Eur., X, 2, p. 71. (1835).

Hadena intermissa, Wlk., XI., 587 (1857).

Apamia inquieta, Wlk., XI., 730 (1857).

Hadena albifusa, Wlk., XII., 752 (1857).

Apamea glaucoraria, Wlk., Can. Nat. and Geol., V., p. 255 (1860).

Mamestra canescens, Moore, A. M. N. H. 1878, p. 233; id. 2nd Yarkand Mission, p. 9, pl. 1, f. 13.

„ *oregonica*, Grote, Can. Ent., XIII., p. 230 (1881).

Habitat.—N. AMERICA ; EUROPE ; SOKOTRA ; W. AND C. ASIA ; PUNJAB ; SIKHIM ; TIBET.

1679a. SCOTOGRAMMA AGROTIFORMIS.

Genus LASIESTRA.

Type.

Lasiestra, Hmps. Cat. Lep. Phal. B. M. V., p. 47 (1905)... *phoca*.

Proboscis fully developed ; palpi upturned, the 2nd joint clothed with long hair in front, the 3rd moderate ; frons smooth ; eyes large, rounded, overhung by long cilia ; antennæ of male serrate or ciliated ; head and thorax clothed with rough hair and without crests ; tibiæ fringed with rough hair ; abdomen with dorsal crests on basal segments. Forewing with the termen obliquely curved ; veins 3 and 5 from close to angle of cell ; 6 from upper angle ; 9 from 10 anastomosing with 8 to form the areole ; 11 from cell. Hindwing with vein 3 from close to angle of cell ; 5 obsolete from just below middle of discocellulars ; 6·7 shortly stalked ; 8 anastomosing with the cell near base only.

Sect. II. Antennæ of male ciliated.

A. Forewing not tinged with olive..... *elvesi*.

B. Forewing tinged with olive *deliciosa*.

1685. LASIESTRA ELVESI.

1683a. LASIESTRA DELICIOSA, Alph. Hor. Ent. Soc. Ross. XXVI., p. 446 (1892) ; id. Rom. Mem. IX., p. 18, pl. 3, f. 3 ; Staud. Cat. Lep. Pal., p. 162.

Head and thorax olive-grey mixed with some black ; tegulæ whitish edged with black ; tarsi with whitish rings ; abdomen olive-grey. Forewing olive-grey irrorated with fuscous, the markings blackish irrorated with yellow scales ;



Lasiestra elvesi. ♂ !.

subbasal line double, waved, from costa to vein 1 ; antemedial line double, waved ; claviform small, defined by black ; orbicular and reniform defined by black, the former round, or quadrate, open above and below ; a waved medial line ; postmedial line double, dentate and produced to points on the veins, bent outwards below costa and oblique below vein 4 ; subterminal line excurved below costa and at middle, angled inwards in discal and submedian folds ; a terminal series of small triangular black spots ; cilia whitish, with a dark line through them. Hindwing dark fuscous, with very indistinct greyish subterminal line ; cilia white with dark line through them ; the underside grey irrorated with brown, a dark discoidal spot and sinuous postmedial line.

Habitat.—TIBET ; KASHMIR, Barra Larcha, Kokser. *Exp.* 36-38 mill.

Genus MISELIA.

	<i>Type.</i>
<i>Miselia</i> , Ochs. Schmett. Eur., IV., p. 72 (1816), non. descr. ; Treit. Schmett. Eur., V. (1), p. 386 (1825)	<i>conspersa.</i>
<i>Polia</i> , Ochs. Schmett. Eur., IV., p. 73 (1816), non. descr. ; Treit. Schmett. Eur., V. (2), p. 5 (1825)	<i>cappa.</i>
<i>Mamestra</i> , Ochs. Schmett. Eur., IV., p. 75 (1816), non. descr. ; Treit. Schmett. Eur., V. (2), p. 127 (1825)	<i>psi.</i>
<i>Nanthia</i> , Ochs. Schmett. Eur., IV., p. 82 (1816), non. descr.	<i>luteago.</i>
<i>Polymixis</i> , Hübn. Verz., p. 205 (1827)	<i>jiligramma.</i>
<i>Harmodia</i> , Hübn. Verz., p. 207 (1827)	<i>compta.</i>
<i>Melanchra</i> , Hübn. Verz., p. 207 (1827)	<i>persicaria.</i>
<i>Ethria</i> , Hübn. Verz., p. 218 (1827)	<i>serena.</i>
<i>Astrapetis</i> , Hübn. Verz., p. 219 (1827)	<i>dentina.</i>
<i>Diataraxia</i> , Hübn. Verz., p. 219 (1827)	<i>splendens.</i>
<i>Dianthecia</i> , Boisd. Silberm. Rev. Ent., II., p. 246 (1834) ...	<i>cucubali.</i>
<i>Hecatera</i> , Guen. Noct., II., p. 27 (1852).....	<i>dysodea.</i>
<i>Aplecta</i> , Guen. Noct., II., p. 74 (1852), nec Guen., 1841, non. descr.	<i>nebulosa.</i>
<i>Pastona</i> , Wlk., XV., 1754 (1858)	<i>rudis.</i>
<i>Magusa</i> , Wlk., XXXIV., 1223 (1865)	<i>rudis.</i>
<i>Meterana</i> , Butl. P.Z.S., 1877, p. 85 ...	<i>pictula.</i>
<i>Xanthalia</i> , Berg. Ann. Soc. Ent. Belg., XXXVIII., p. 395 (1894)	<i>luteago.</i>
<i>Haderonia</i> , Staud Iris., VIII., p. 322 (1895)	<i>subarschanica.</i>

Proboscis fully developed ; palpi obliquely upturned, the 2nd joint fringed with long hair in front, the 3rd short ; frons smooth ; eyes large, rounded ; head and thorax clothed chiefly with scales, the pro- and metathorax with crests ; pectus and tibiæ clothed with long hair ; abdomen with dorsal series of crests. Forewing with veins 3 and 5 from near angle of cell ; 6 from upper angle ; 9 from 10 anastomosing with 8 to form the areole ; 11 from cell. Hindwing with veins 3·4 from angle of cell ; 5 obsolete from middle of discocellulars ; 6·7 from upper angle or shortly stalked ; 8 anastomosing with the cell near base only.

Sect. I. (*Haderonia*). Antennæ of male bipectinate with long branches, the apical part serrate.

1702. MISELIA CULTA, insert (syn.) *Hadena subviolacea*, Leech Trans. Ent. Soc., 1900, p. 55.

Sec. II. Antennæ of male serrate and fasciculate.

1702 a. MISELIA TENEBRA, Hmps. Cat. Lep. Phal. B.M., V., p. 87, pl. 80, f. 26 (1905).

♂. Head and thorax brown mixed with white and black scales ; tarsi with pale rings ; abdomen reddish-brown. Forewing fuscous brown mixed with grey and slightly tinged in parts with dull olive ; subbasal line double, waved,

interrupted at middle, from costa to vein 1; antemedial line irregularly waved, oblique, defined by grey on inner side; claviform moderate, defined by black; orbicular and reniform defined by black, the former small, round with white annulus, the latter indistinct, irregular; an indistinct waved medial line; postmedial line defined by whitish on outer side, dentate, bent outwards below costa, excurved to vein 4, then incurved, some white points beyond it on costa; subterminal line whitish, defined on inner side by a series of small dentate black marks, slightly angled outwards at vein 7 and excurved at middle; a terminal series of small black lunules; cilia whitish and fuscous with a black line at base. Hindwing pale, suffused with brown, the terminal area darkest, a slight discoidal spot, sinuous postmedial line, and some terminal lunules; cilia whitish with a dark line near base; the underside whitish irrorated with brown.

Habitat.—KASHMIR, Deosai Plains. *Exp.* 36 mill.

Sect. III. Antennæ of male ciliated.

A. Prothorax with divided crest.

- a.* Forewing with the ground-colour ochreous or greyish ochreous *consanguis.*
b. Forewing with the ground-colour blackish..... *mortua.*
c. Forewing with the ground-colour dark purplish grey more or less completely suffused with fuscous.
*a*¹ Forewing with the costal area concolorous.
*a*² Forewing with the inner area concolorous..... *mamestrina.*
*b*² Forewing with ochreous-brown fascia on inner margin *nagaensis.*
*b*¹ Forewing with grey streak below costa *ferrisparva.*
*c*¹ Forewing with the costal area pinkish ochreous..... *castigera.*
d. Forewing with the ground-colour whitish grey *scotchclora.*

1679. *MISELIA CONSANGUIS*, insert (syns.)

Hadena languida, Wlk., XV., 728 (1858).

Mamestra zachii, Bhtsch. Vesh. Zool-bot. Ges. Wien. 1879, p. 406.

Hecatera impura, Snell. Medden-Sumatra Lep., p. 43, pl. 51, f. 5 (1880)..

Hadena stolidi, Leech, P. Z. S. 1889, p. 5(9, pl. iv., f. 2.

Mamestra abbas, Baker, Trans. Ent. Soc. 1894, p. 40, pl. 1, f. 8.

1694. *MISELIA MORTUA*, Staud, Stett. Ent. Zeit, 1888, p. 249; id. Rom. Mem.

VI., p. 426, pl. 8, f. 1; id. Cat. Lep. Pal., p. 156.

Mamestra afra, Græs. Berl. Ent. Zeit., 1888, p. 326.

„ *nigerrima*, Warr. P. Z. S., 1888, p. 302.

Hadena kala, Swinh. Cat. Het. Mus. Oxon, II., p. 17 (1900).

1700. *MISELIA MAMESTRINA*.

1689. *MISELIA NAGAENSIS*.

1688. *MISELIA FERRISPARSA*.

1685. *MISELIA COSTIGERA*.

1695. *MISELIA SCOTOCHLORA*.

B Prothorax with spreading crest.

a. Abdomen of female with the extremity blunt, the ovipositor not exerted.

a¹. Forewing with the subterminal line dentate on veins 4·3 and forming a distinct W-mark.

a². Forewing with black streak below base of cell. *prædita*.

b². Forewing without black streak below base of cell.

a³. Forewing with the postmedial line incurved between veins 5 and 2.

a⁴. Forewing with the orbicular small, narrow, oblique elliptical *furcula*.

b⁴. Forewing with the orbicular well developed *schneideri*.

b³. Forewing with the postmedial line oblique, waved below vein 2..... *perdentata*.

b¹. Forewing with the subterminal line not forming a distinct W-mark.

a². Forewing with the reniform large, kidney-shaped.

a³. Forewing with the ground-colour purplish grey.

a⁴. Forewing with pale dentate mark on base of vein 2 *dentina*.

b⁴. Forewing without pale dentate mark on base of vein 2.

a⁵. Head and tegulæ not white..... *glauca*.

b⁵. Head and tegulæ white..... *cnivetti*.

b³. Forewing with the ground-colour reddish brown *pannosa*.

c¹. Forewing with the ground-colour grey-white *dysodea*.

b². Forewing with reniform small, narrow, and angled inwards to orbicular on median nervure *mediana*.

1678.a. MISELLA PRÆDITA, Hübn. Eur. Schmett. Noct., f. 595 (1827) ; Led.

Ann. Soc. Ent. Belg. 1870, pl. 1, f. 11 ; Staud. Cat. Lep. Pal., p. 160.

Head, thorax and abdomen grey, slightly tinged with fuscous. Forewing grey, the antemedial and medial areas tinged with fuscous except towards costa and inner margin ; a black streak below base of cell ; subbasal line absent ; antemedial line defined by white on outer side, oblique from costa to submedian fold, then nearly erect ; claviform almost obsolete, a dentate whitish mark beyond it on base of vein 2 ; orbicular and reniform with brownish centres and white annuli defined by black, the former oblique elliptical, open above ; the

median nervure and veins rising from it defined by fine white streaks; post-medial line defined by white on outer side, bent outwards below costa, excurved to vein 4, then oblique; terminal area brown except at apex, extending to inner side of the subterminal line which is white, angled outwards at vein 7 and dentate to termen at veins 4·3. Hindwing whitish tinged with brown, the terminal area suffused with fuscous; the underside white, the costal and terminal areas irrorated with brown, a small discoidal spot and sinuous punctiform postmedial line.

Habitat.—S. E. RUSSIA; ARMENIA; W. TURKISTAN; E. TURKISTAN; KASHMIR, Nubra. *Exp.* 34 mill.

1678.*b.* MISELIA FURCULA, Staud, Stett, Ent. Zeit, 1889, p. 36; Hmpsn. Cat. Lep. Phal. B. M. V., p. 127; pl. 81, f. 19; Staud. Cat. Lep. Pal., p. 160.

Head and thorax grey mixed with brown and fuscous; tegulæ with two more or less prominent black lines; patagia with some black scales on upper edge; abdomen grey mixed with fuscous. Forewing grey with a violaceous tinge and slight brown suffusion, the medial area brown except towards costa and inner margin; subbasal line represented by double black striæ from costa and cell filled in with white; antemedial line double filled in with white, waved from costa to vein 1, then strongly angled outwards, sometimes almost to postmedial line; claviform large, brown defined by black, acute at extremity, a bidentate white mark above it on vein 2; orbicular and reniform small defined by black, the former oblique elliptical, white with slight brown centre, the latter brown with slight white annulus; postmedial line defined by white on outer side, angled outwards below costa and sharply at vein 5, then incurved and angled on veins 2 and 1; subterminal line white, defined on inner side by dentate black marks below costa and at middle, angled outwards at vein 7 and dentate to termen at veins 4·3, the area beyond it suffused with brown; a terminal series of small black lunules; cilia intersected with white. Hindwing white, the veins, base and inner area suffused with brown; a broad terminal fuscous-brown band; cilia white; the underside sparsely irrorated with brown, a small discoidal lunule, crenulate postmedial line, and diffused subterminal band.

Habitat.—W. TURKISTAN; E. TURKISTAN; KASHMIR, Kardong, Digha Pass. *Exp.* 30 mill.

1678.*c.* MISELIA SCHNEIDERI, Staud, Iris, XII., p. 368 (1900); Hmpsn. Cat. Lep. Phal. B. M., V., p. 129, pl. 81, f. 21; Staud: Cat. Lep. Pal., p. 160.

Head, thorax and abdomen grey mixed with brown; tegulæ with black medial line; tarsi with pale rings. Forewing grey-brown; subbasal line represented by double black striæ from costa and cell; a double black streak above inner margin before the antemedial line which is double, filled in with grey, angled outwards below costa and strongly above inner margin, slightly excurved between those points; claviform brown defined by black; acute at extremity, a bidentate whitish mark above it on vein 2; orbicular oblique elliptical, with

brown centre and whitish annulus defined by black; reniform rather narrow, fuscous grey defined by black; an indistinct medial line oblique from costa to vein 2, then dentate; postmedial line double filled in with grey, bent outwards below costa, incurved to vein 4, then bisinuate, the area beyond it paler with some whitish points on costa; subterminal line whitish defined on inner side by black streaks below costa and dentate marks at middle, angled outwards at vein 7 and dentate to termen at veins 4·3, the area beyond it suffused with black; a terminal series of black lunules; cilia pale brown with darker line through them and intersected with ochreous. Hindwing whitish, the base tinged with brown, the veins, discoidal lunule and terminal half brown; cilia white; the underside whitish slightly irrorated with brown, a discoidal lunule, slight curved postmedial line and broad subterminal band.

Habitat.—W. TURKISTAN; E. TURKISTAN; KASHMIR, Deosai Plains. *Exp.* 40-44 mill.

1678. *MISELIA PERDENTATA* insert (syn.) *Mamestra bifida*, Püng. Iris, 1902, p. 149, pl. 5, f. 3; Hmps. Cat. Lep. Phal., B. M., V., p. 129, pl. 81, f. 22.

1690. *a.* *MISELIA DENTINA*, Schiff. Wien. Verz., p. 82 (1776); Esp. Schmett IV., pl. 127, f. 3 (1789); Hübn. Eur. Schmett. Noct. f. 408; Dup. Lep. Fr. VI., p. 269, pl. 89, f. 6; Staud. Cat. Lep. Pal., p. 159.

Noctua plebeia, Haw. Lep. Brit., p. 198 (1809); Steph. Ill. Brit. Ent. Haust., III., p. 185.

Noctua leucostigma, Haw. Lep. Brit., p. 198 (1809); Steph. Ill. Brit. Ent. Haust., III., p. 186.

Hadena latenai, Pierret, Ann. Soc. Ent. Fr. 1857, p. 177, pl. 8, f. 3. *Noctua hilaris*, Zett. Ins. Lapp, p. 938 (1840).

Head and thorax grey mixed with black; tegulæ with black medial line; tarsi ringed with white; abdomen greyish fuscous. Forewing violaceous grey irrorated with fuscous; the medial area suffused with fuscous brown; a black streak in base of submedian fold; subbasal line represented by double black striæ from costa and cell; some yellow on inner margin near base usually present; antemedial line double, waved, oblique; claviform moderate, defined by black; a bidentate whitish patch beyond it below the cell; orbicular and reniform grey defined by black and with more or less developed fuscous centres, the former round; an indistinct waved medial line; postmedial line double, dentate and produced to short streaks on the veins, bent outwards below costa and incurved below vein 4, some white spots beyond it on costa; subterminal line whitish, often tinged with yellow, defined on inner side by small dentate black marks and with some black beyond it in discal fold, angled outwards at vein 7 and somewhat dentate at veins 4·3; a terminal series of small black lunules; cilia fuscous intersected with white. Hindwing fuscous brown, rather darker on terminal area; cilia yellowish at base, with brown line through them and white tips; the underside grey irrorated with brown, a small discoidal spot, curved postmedial line, and subterminal band.

Ab *latenai* much darker, the forewing wholly suffused with fuscous.

Habitat.—EUROPE; W. ASIA: W. TURKISTAN; W. SIBERIA; E. TURKISTAN; KASHMIR, Gooch's Valley. *Exp.* 32-42 mill.

Larva, Meyr. Brit. Lep., p. 82; Barrett. Lep. Brit., IV., p. 197, pl. 159, f. 1.

Pale grey-brown; a dorsal series of conjoined blackish spots edged with white; spiracular line darker; lateral and subspiracular lines less distinct. Food plant, roots of *Taraxacum*. 5.

1690. *MISELIA GLAUCA*, Kleem. Beitr. Ins. 1, pl. 48, ff. 1-7 (1761); Hübn. Eur. Schmett. Noct., f. 410; Dup. Lep. Fr., VI., p. 322, pl. 92, f. 7; Steph. Ill. Brit. Ent. Haust., II., p. 185; Staud. Cat. Lep. pal., p. 158.

Noctua aperta, Geyer. Eur. Schmett. Noct., f. 800 (1827).

„ *lappo*, Dup. Lep. Fr., VII, p. 255, pl. 116, f. 3 (1837).

Hadena quadripunctata, Zett. Ins. Lapp., p. 939 (1840).

„ *farkasi*, Herr. Schöff. Eur. Schmett. Noct., f. 390 (1845), nec Treit.

Hadena polioctigma, Hmps. Moths. Ind., II., p. 201 (1894).

Mamestra tannensis, Fuels. Jhrb. Nass. LII., p. 133 (1839).

Habitat.—EUROPE; W. TURKISTAN; AMURLAND; KAMSCHATCA; KASHMIR.

1698. *MISELIA CNIVETII*.

1703. *MISELIA PANNOSA*.

1682. *MISELIA DYSODEA*, Schiff. Wien. Verz., p. 72 (1776); Hübn. Eur. Schmett. Noct., f. 47. Dup. Lep. Fr. VI., p. 404, pl. 98, f. 2 and Suppl. V., pl. 1, f. 2; Steph. Ill. Brit. Ent. Haust., III, p. 32.

Noctua spinacia, View. Tab. Viez. Brandenburg, p. 70 (1789).

„ *flavocincta minor*, Esp. Schmett. IV., pl. 153, ff. 6-7 (1790).

„ *chrysozona*, Borkh. Eur. Schmett., IV, p. 264. (1792); Staud. Cat. Lep. pal. p. 160.

„ *ranunculina*, Haw. Lep. Brit., p. 183 (1809).

Mamestra caduca, Herr. Schöff. Eur. Schmett., II., p. 266. Noct., f. 484 (1845).

„ *innocens*, Staud. Hor. Soc. Ent. Ross, VII., p. 123, pl. 1, f. 10 (1870).

„ *koehlini*, Th. Mieg. Le Nat., XII., p. 181 (1889).

„ *turbida*, Höfn. Jhrb. Kärnt., XXIV., p. 11 (1897).

Head and thorax grey mixed with reddish brown and black; tarsi blackish mixed with white; abdomen grey tinged with rufous and irrorated with fuscous. Forewing grey-white thickly irrorated with dark brown, the medial area rather darker; some orange-yellow in submedian fold; subbasal line with yellow marks on it and defined by white on outer side, wavy, from costa to submedian fold; antemedial line oblique, wavy, defined by white on inner side and with yellow marks on it; claviform moderate, defined by black; orbicular and reniform defined by black and with some yellow at sides, the former round; an irregularly wavy medial line; postmedial line defined by white on outer

side, dentate, bent outwards below costa, excurved to vein 4, then incurved, some white points beyond it on costa; subterminal line represented by yellow spots on inner side of irregular brown marks; a terminal series of slight dark lunules; cilia chequered ochreous and brown. Hindwing pale tinged with brown, the terminal area dark brown; slight greyish streaks on extremities of veins 2 and 1; cilia pale with a brown line near base, the underside white, the costal and terminal areas irrorated with brown, a small discoidal spot and waved postmedial line.

Ab. 1. *caluca*. Forewing whitish grey without the yellow markings.

Ab. 2. *innocens*. Forewing whitish grey with slight yellow markings, the medial area more prominently dark. . . S. Europe, W. and C. Asia.

Ab. 3. Darker, especially the medial area of forewing. Kashmir.

Habitat—EUROPE; W. ASIA; PERSIA; W. TURKISTAN; W. CHINA; KASHMIR, Goorais Valley. *Exp.* 32-36 mill.

Larvæ, Meyr. Brit. Lep., p. 82; Barrett. Lep. Brit. IV., p. 218, pl. 161, f. 1.

Pale dull green or yellowish irrorated with brown; dorsal line pale with dark edges; lateral line dark indistinct; spiracles black; head ochreous brown or dull greenish. Food plants: flowers of *Souchus* and *Lac uca*, 7-8.

1682. *MISELIA MEDIANA*.

b. (*Harmodia*) Abdomen of female with the extremity produced and conical, the ovipositor exerted.

1682*b.* *MISELIA MAGNOLII*, Boisd. Ind. Meth., p. 125 (1829); Dup. Lep. Fr. Suppl. VI., p. 241, pl. 22, f. 4. Herr. Schöff. Eur. Schmett. Noct., f. 71; Staud. Cat. Lep. pal. p. 162.

Miselia nummosa, Ev. Faun. Volg. Ur, p. 233 (1844); Frr. Beitr., IV., pl. 351, f. 3.

Head and thorax olive brown mixed with white and black; tarsi mixed with white; abdomen grey-brown. Forewing olive-brown with a reddish tinge, sparsely irrorated with white, chiefly on the veins, and slightly suffused with black; a whitish patch at base of costa traversed by the double, waved, black subbasal line, from costa to submedian fold; antemedial line double, waved, filled in with white; claviform large, defined by black; orbicular and reniform with brown centres and white annuli defined by black, the former round, the latter rather irregular and with its outer edge indented; a medial shade, oblique to median nervure, then somewhat dentate; postmedial line defined by white on outer side, strongly dentate, bent outwards below costa and strongly incurved below vein 4, some white points beyond it on costa; subterminal line white, defined on inner side by a series of small dentate black marks, angled outwards at vein 7 and somewhat dentate at veins 4-3; a terminal series of small black lunules defined by white; cilia intersected with white. Hindwing ochreous white slightly irrorated with brown, the veins and marginal areas strongly suffused with brown; cilia with a brown line near base; the underside with discoidal spot, sinuous postmedial line and diffused subterminal band.

Habitat—EUROPE; W. ASIA; W. TURKISTAN. *Exp.* 36-40 mill.

Subspecies *conspurcata*. Frr. Neue. Beitr. Schmett., V., p. 82, pl., 433, f. 3 (1844); Herr. Schöff. Eur. Schmett. Noct. ff. 463-470; Staud. Cat. Lep. pal. p. 162.

Head, thorax and forewing grey-brown without the rufous tinge, the last with the claviform reduced to a small black mark, the orbicular oblique elliptical, the reniform slightly angled inwards on median nervure, but not on subcostal nervure.

Habitat—C. AND S. RUSSIA, Urals; W. SIBERIA, Altai; ? E. SIBERIA; PUNJAB, Hunza.

Larva, Wullschlegel, Stett. Ent. Zeit, XXXII, p. 466.

Pale reddish grey with a dark maculate dorsal stripe, oblique subdorsal marks and pale lateral line. Food plant : *Silene nutans*. 8·9.

Genus ODONTESTRA.

Type.

Odontestra, Hmps. Cat. Lep. Phal. B. M., V., p. 205 (1905) *vittigera*.

Proboscis fully developed; palpi short, oblique, fringed with hair in front; frons with rounded prominence with small corneous plate below it; eyes large, rounded; antennæ of male ciliated; head and thorax clothed chiefly with scales, pro- and metathorax with spreading crests; abdomen with dorsal crest on 1st segment only. Forewing rather short and broad, the termen evenly curved; veins 3 and 5 from near angle of cell, 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hindwing with veins 3·4 from angle of cell; 5 obsolescent from middle of discocellulars; 6·7 from upper angle or shortly stalked; 8 anastomosing with the cell near base only.

A. Forewing with the terminal line narrow, whitish.

- a. Hindwing white, the terminal area suffused with fuscous *simillima*.
- b. Hindwing uniformly suffused with fuscous *potanini*.

B. Forewing with the subterminal line broader, yellowish *submarginalis*.

1687. ODONTESTRA SIMILLIMA.

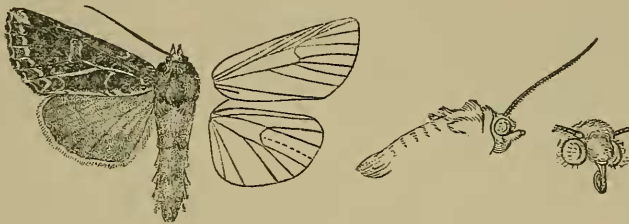
1687a. ODONTESTRA POTANINI, Alph. Iris., VIII, p. 192 (1895); id. Rom. Mem., IX, p. 137, pl. IX., f. 10 (1897).

Head and thorax irrorated with grey; tegulæ with black medial line; patagia edged with black above; tarsi with pale rings; abdomen fuscous brown. Forewing purple-grey; the costal area suffused with purplish red except towards base; the inner margin with ochreous white fascia from base to tornus; subbasal line represented by double striæ from costa and a black patch below the cell crossed by an oblique ochreous striga; antemedial line double, dentate towards costa, usually filled in with ochreous in submedian interspace, obsolete below vein 1; claviform very large, filled in with black; vein 2 defined by an ochreous white fascia below or on both sides to just beyond postmedial line; orbicular and reniform with ochreous annuli defined by black, the former very small, round or oblique elliptical, the latter with ochreous centre and angled inwards on median nervure; postmedial line

double, dentate and produced to points on the veins, bent outwards below costa, excurved to vein 4, then oblique, obsolete below vein 1, some pale points beyond it on costa often present ; subterminal line ochreous white, defined on inner side by prominent dentate black marks, angled outwards at vein 7 and inwards in submedian fold, some red-brown suffusion beyond it, the apex usually ochreous ; a terminal series of small black lunules : cilia grey with black lines through them. Hindwing fuscous ; the cilia pale with a brown line near base ; the underside pale, the costal and terminal area thickly irrorated with fuscous, a discoidal lunule and curved postmedial line.

Habitat—W. CHINA ; PUNJAB, Simla, Dalhousie, Dharmśāla. *Exp.* 44 mill.

1686. ODONTESTRA SUBMARGINALIS, Wlk. Char. Undescr. Het., p. 32 (1862), has priority over *incisa*.



Odontestra submarginalis. ♂ 1.

Genus HADENA.

Type.

- | | |
|--|----------------------|
| <i>Hadena</i> , Schrank, Faun. Boica, II (2), p. 158 (1802)..... | <i>reticulata</i> . |
| <i>Neurta</i> , Guen. Noct. 1, p. 166 (1852), nec Guen. 1841, non descr. | <i>reticulata</i> . |
| <i>Dargida</i> , Wlk. IX., 401 (1856) | <i>graminivora</i> . |
| <i>Eupsephactes</i> , Grote, Bull. Buff. Soc. Nat. Sci. I, p. 138, pl. iv., f. 6 (1873) .. | <i>procincta</i> . |

Proboscis fully developed ; palpi obliquely upturned, the 2nd joint fringed with hair in front, the 3rd short ; frons smooth ; eyes large, rounded ; antennae of male ciliated ; thorax quadrately clothed with hair and scales, prothorax typically with divided crest ; pectus clothed with long hair ; abdomen with dorsal crest on basal segment, clothed with woolly hair at base and with lateral fringes of hair towards extremity. Forewing rather narrow, the apex produced and the termen obliquely curved, the cilia crenulate ; veins 3 and 5 from near angle of cell, 6 from upper angle ; 9 from 10 anastomosing with 8 to form the areole ; 11 from cell. Hindwing with veins 3·4 from angle of cell ; 5 obsolete from middle of discocellulars ; 6·7 from upper angle ; 8 anastomosing with the cell near base.

- A. Forewing with the postmedial line strongly excurved from below costa to vein 4, then oblique *dissecta*.
- B. Forewing with the postmedial line moderately excurved from below costa to vein 4, then incurved..... *reticulata*.

1684. HADENA DISSECTA, insert (syn.) *Mamestra cracifer*, Fald. Rcis. Nov., pl. 109, f. 39 (1874).

1684.a. *HADENA RETICULATA*, Vill. Linn. Ent. II., p. 254 (1789); Staud Cat. Lep. pal., p. 159.

Noctua calcatrippa, View., Schmett., p. 71 (1789).

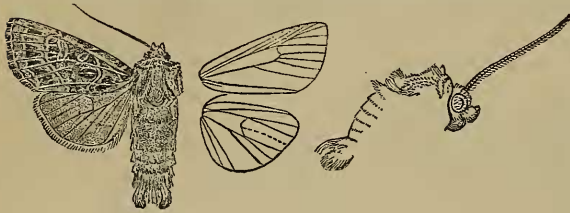
„ *saponarice*, Esp. Schmett. IV., pl. 198., ff. 3·4 (1790); Dup. Lep. Fr. VI., p. 272, pl. 90, f. 2; Steph. III. Brit. Ent. Haust. II, p. 189.

„ *marginosa*, Haw. Lep. Brit., p. 101 (1803).

„ *typica*. Hübn. Eur. Schmett. Noct., f. 58 (1827).

Mamestra unicolor, Alph. Rom. Mem. V., p. 147 (1889).

Head and thorax reddish brown mixed with grey and black; tarsi blackish with



Hadena reticulata. ♂ ½.

pale bands; abdomen ochreous thickly irrorated with dark brown. Forewing dark brown suffused with violaceous before the antemedial line, beyond the claviform, and on

postmedial area; the veins streaked with white except on postmedial area, where they are black; the subbasal line represented by double oblique black strigæ from costa and cell filled in with white, a very oblique white striga across the cell just beyond it; the antemedial line double, black filled in with white, angled outwards below costa and above inner margin, incurved between those points; claviform large, defined by black, and with pale streak at centre; orbicular and reniform with white annuli defined by black, the former oblique elliptical, open above, the latter narrow and with white lunule at centre; a fine black medial line, oblique from costa to vein 2, then dentate; postmedial line double, black filled in with white, minutely waved, bent outwards below costa, excurred to vein 4, then incurved and angled inwards above inner margin, some white points beyond it on costa; subterminal line ochreous white, angled outwards at vein 7 and dentate at veins 4 and 3, with a series of dentate black marks on its inner side; a terminal series of small black lunules; cilia with fine pale line at base and intersected with white. Hindwing ochreous white suffused with brown, the veins and terminal area brown; cilia ochreous white with a fine brown line at base; the underside with the costal and terminal areas irrorated with brown, a dark discoidal lunule and indistinct curved postmedial line.

Ab. 1 *unicolor*. Forewing without violaceous tinge.

Habitat.—EUROPE; ARMENIA; W. SIBERIA; W. TURKISTAN; E. TURKISTAN; MONGOLIA; KASHMIR, Nnbra, Goorais Valley. *Exp.* 40·44 mill.

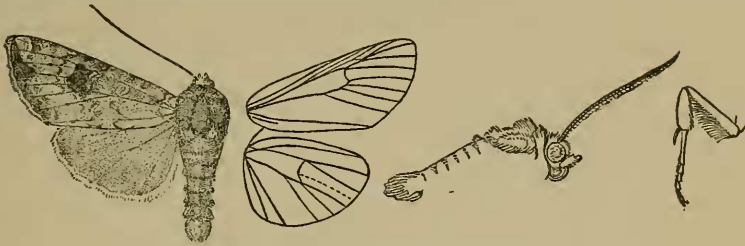
Larva, Meyr. Brit. Lep., p. 81; Barrett. Lep. Brit. IV., p. 153, pl. 153, f. 2.

Pale greenish ochreous or pinkish ochreous with darker irroration; dorsal, subsdorsal, lateral and spiracular lines faintly paler; head pale brownish. Food plants: *Lilene*, *Rumex*, *Primula*, etc., 8·4.

Genus HYPOBARATHRA.

Hypobarathra, Hmspn. Cat. Lep. Phal. B. M. V., p. 221 (1905)

Type.
sterias.



Hypobarathra repetita, ♂ ♀.

Proboscis fully developed; palpi obliquely upturned, fringed with hair in front; frons smooth; eyes large, rounded; antennæ of male ciliated; head and thorax clothed with hair and scales, the pro- and metathorax with spreading crests; fore tibiæ with long curved claw on inner side; abdomen with dorsal crest at base only. Forewing with veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hindwing with veins 3·4 from angle of cell; 5 obsolete from just below angle of discocellulars; 6·7 from upper angle or shortly stalked; 8 anastomosing with the cell near base only.

1692. HYPOBARATHRA REPETITA.

Genus TRICHOCLEA.

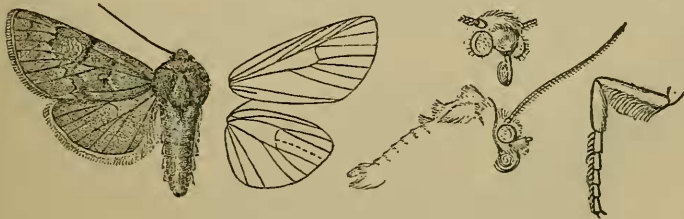
Type.

Trichoclea, Grote, Papilio III, p. 30 (1883). *decepta*.

Proboscis fully developed; palpi obliquely porrect, the 2nd joint fringed with hair, the 3rd short, porrect; frons with small rounded prominence with corneous plate below it; eyes large, round, not ciliated; antennæ of male ciliated; thorax clothed with hair and scales, the pro- and metathorax with slight spreading crests; tibiæ fringed with hair on outer side; the tarsi with the 1st or 1st two joints with long curved claw-like spines on outer side; abdomen with dorsal crest on 1st segment. Forewing with the termen slightly crenulate veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hindwing with veins 3·4 from angle of cell; 5 obsolete from just below middle of discocellulars; 6·7 from upper angle; 8 anastomosing with the cell near base only.

1692. a. TRICHOCLEA CHOLICA, Hmspn. Cat. Lep. Phal. B. M., V. pl. 84, f. 25 (1905).

Head and thorax ochreous, slightly mixed with brown and grey; abdomen



ochreous
brown or
greyish.
Forewing
ochreous
brown ir-
rorated
with fus-

Trichoclea cholica ♂ ♀.

cous; an indistinct double, waved subbasal line from costa to submedian

fold; an oblique waved antemedial line angled inwards on vein 1 and defined by greyish on inner side; claviform hardly visible, defined by a few dark scales; orbicular and reniform very indistinct, defined by a few dark scales, the former round; an indistinct curved medial band; postmedial line strongly dentate, bent outwards below costa and strongly incurved below vein 4; subterminal line indistinct, pale, defined by obscure somewhat dentate fuscous marks on inner side, angled outwards at vein 7 and excurved at middle; a terminal series of black points. Hindwing suffused with fuscous brown, the terminal area rather darker; the underside greyish irrorated with brown, a discoidal spot and curved postmedial line with short dark streaks on the veins.

Habitat.—KASHMIR, Nubra. *Exp.* 40 mill.

Genus TIRACOLA. *Type.*

Tiracola, Moore P. Z. S. 1881, p. 351..... *plagiata*.

1940. TIRACOLA PLAGIATA, insert (syn.) *Agrotis grandirena*, Herr Schöff. *Corresp-blatt*, Regensb. 1868, p. 149.

Habitat.—W. INDIES; C. & S. AMERICA; W. CHINA; INDIA; CEYLON; SINGAPORE; BORNEO; JAVA; N. GUINEA; AUSTRALIA; TAHITI; MARQUESAS.

Genus CHABUATA.

Type.

Chabuata, Wlk., XIV. 1034 (1857) *ampla*.

Tricholita, Grote, Bull. Buff. Soc. Nat. Sci. II., p. 211 (1875). *signata*.

Proboscis fully developed; palpi obliquely upturned, the second joint fringed with hair in front, the 3rd moderate; frons smooth; eyes large, rounded; head and thorax clothed with rough hair and scales, the prothorax with triangular crest, the metathorax with spreading crest; tibiæ clothed with rough hair; abdomen with dorsal crest at base and slight lateral fringes of hair. Forewing with veins 3 and 5 from close to angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hindwing with veins 3·4 from angle of cell; 5 obsolescent from middle of discocellulars; 6·7 from upper angle; 8 anastomosing with the cell near base only.

Sec. III. Antennæ of male ciliated.

A. Abdomen of male with paired ventral tufts of long hair from base.

a. Forewing yellow, irrorated and striated with rufous *distincta*.

b. Forewing reddish or grey tinged with red, irrorated and striated with brown *obscura*.

1921. CHABUATA DISTINCTA.



Fig. 54. *Chabuata distincta* ♂ 1.

1922. CHABUATA OBSCURA, insert (syn.) *Leucania nepes*, Leech, Trans. Ent. Soc. 1900, p. 100.

B. Abdomen of male without ventral tufts of hair.

a. Forewing with the antemedial line angled outwards in submedian fold *angulifera*.

b. Forewing with the antemedial line not angled outwards in submedian fold.

a. Forewing without pale striæ..... *albicosta*.

b. Forewing with numerous pale striæ *fraterna*.

1916. CHABUATA ANGULIFERA.

1914. CHABUATA ALBICOSTA.

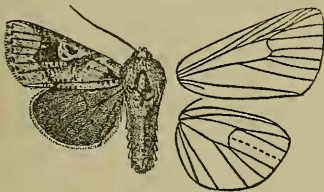
1915. CHABUATA FRATERNA.

Genus XYLOMANIA.

Type.

Xylomania, Hmps. Cat, Lep. Phal. B. M. V., p. 389 (1905). *hyemalis*.

Proboscis fully developed ; palpi porrect to just beyond frons, the 2nd joint



fringed with hair below, the 3rd short ; frons smooth ; eyes large, rounded ; tegulæ dorsally produced into a slight ridge ; pro and metathorax

Xylomania v-album. ♂ 1.

with spreading crests ; pectus clothed with woolly hair ; tibiæ fringed with hair ; abdomen with dorsal crest on basal segment. Forewing with the apex slightly produced, the termen oblique and somewhat angled at vein 3 ; veins 3 and 5 from near angle of cell ; 6 from upper angle ; 9 from 10 anastomosing with 8 to form the areole ; 11 from cell. Hindwing with veins 3-4 and 6-7 shortly stalked ; 5 obsolescent from middle of discocellulars ; 8 anastomosing with the cell near base.

Sect. IV. Antennæ of male ciliated.

1907. XYLOMANIA V-ALBUM.

(To be continued.)